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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,381	01/15/2002	John M. Nestler		2253

7590 12/16/2003

U.S. Army Corps of Engineers  
ATTN: CEHEC-OC (Kingman Building)  
Humphreys Engineer Center  
7701 Telegraph Road  
Alexandria, VA 22315-3860

EXAMINER
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SALDANO, LISA M

ART UNIT	PAPER NUMBER
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3673

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/045,381

**Applicant(s)**

NESTLER ET AL.

**Examiner**

Lisa M. Saldano

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-28 is/are allowed.
- 6) ☐ Claim(s) 1-3, 6-10 and 17-22 is/are rejected.
- 7) ☒ Claim(s) 4, 5 and 11-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claims 1, 12, 15, 25 and 28 are objected to because of the following informalities:

Regarding claim 1, lines 1-5, the claim language is awkwardly written. For example, the phrase "A hardware system, adjustable vertically as installed in a waterway upstream from at least one barrier to the downstream migration of said fish in said waterway." Examiner suggests that the language be rewritten to better state the invention.

Regarding claims 12 and 25, the claim language is awkward. For example, the limitation described wherein "at least one of said at least one natural hydraulic cues is at least one visual cue that is precluded from occurring thus facilitating passage of said fish around said barrier" should be more clearly stated.

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Regarding claim 15, lines 3-5, the applicant has stated limitations regarding “at least of intakes of said dam.” However, the claims language from which claim 15 depends does not make prior mention of a dam or intakes thereof. These limitations lack antecedent basis.

Regarding claim 28, line 1, the applicant states limitation regarding “at least one additional stimulus.” However, the prior claims language from which this limitation depends fails to state previous “stimulus.” Please clarify.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 7, 17-19, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Koch (4,437,431).

Regarding claims 1, 2, 7, 17, 21 and 22, Koch discloses a method and apparatus for diversion of migrating fish comprising a system that simulates a hydraulic cue for fish by

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forming increased stream flow in a body of water to the point where fish are carried in some manner around a barrier in the body of water, specifically a dam (see abstract). The body of water is a stream, which has a spillway S that is an intake for turbines for generating hydroelectric power located at T. The stream has both an upstream and a downstream side. Koch discloses entrance areas 12a, 12b attached to conduits 10a, 10b (see Figs. 1 and 3) that have vertically adjustable depths within a body of water based on regulation of pilings (see column 4, lines 60-65). Koch further discloses conduits 10a, 10b attached to the entrance ways that collect fish once they have been brought into a hydraulic cue created by

Regarding claims 2, 18 and 19, as broadly claimed by the applicant, the fish instinctively respond to the hydraulic cue formed by the increased stream flow, as they cannot retreat from it thereby minimizing strain rate variables with respect to the depth and width of the stream (see abstract).

5. Claims 1-3, 6-10 and 17-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson (6,467,997).

Regarding claims 1, 6, 7, 17, 21 and 22, Johnson discloses a method and system 10 for diversion of fish around a structure comprising a system that simulates a hydraulic cue for fish by forming a flow scoop 34 in a body of water to the point where fish are carried in some manner around a barrier in the body of water, such as a dam 14 (see column 3, lines 60-65). The body of water is a stream, which has a dam 14 with a water intake 16. The stream has both an upstream and a downstream side. Johnson discloses a frame 30 that is vertically adjustable to change angles in response to hydraulic conditions of a dam and/or the elevation of fish in a water column

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(see column 4, lines 55-58). Johnson further discloses that the frame 30 with bar screen panels 32 provide a gradual incline to orient fish toward a collection channel 42 that transports the fish around a dam structure (see column 5, lines 1-58).

Regarding claim 17, as broadly claimed by the applicant, Johnson's system with its inclined frame 30 and panel 32, 40, is fully capable of changing at least one horizontal eddy that would otherwise naturally occur in the upstream side of the dam 14 in the absence of the Johnson system 10.

Regarding claims 2, 18 and 19, as broadly claimed by the applicant, the fish in Johnson's system instinctively respond to the hydraulic cue formed by flow scoop thereby minimizing strain rate variables with respect to the depth and width of the stream.

Regarding claim 3, Johnson's system discloses a wedge-shaped frame 30 that functions as a collector in combination with channel 42, the frame 30 having length, width, depth, a top, a bottom, an interior and an exterior surface wherein the frame is positioned adjacent and parallel to the upstream side of a barrier or dam 14 and wherein the top of the frame is generally parallel to the upstream side of the dam and the top of the frame is generally parallel with the surface of the body of water. Further, as broadly claimed by the applicant, Johnson's extension 34 is capable of eliminating a zone of dead water that may be adjacent the upstream side of the barrier.

Regarding claims 6, 8-10 and 20, Johnson's system discloses a frame 30 that comprises at least one panel 40 and bar screen panels 32, wherein the panels are pivotably connected to the frame permitting adjustment of the collector to the upstream side of the dam. The frame 30 in combination with channel 42 functions as the "oven hood surface bypass collector" as claimed by applicant.

*Allowable Subject Matter*

6. Claims 4, 5 and 11-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 23-28 would be allowable over the prior art of record.

8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 4 and 23, the closest prior art of record, Johnson, fails to disclose a wedge shaped extension as described by the applicant in combination with at least one articulating extension affixed to a lower part of the fish collector gallery, in combination with the rest of the limitations claimed by the applicant.

Regarding claim 5, the closest prior art of record, Johnson, fails to disclose at least one sensor for alerting change of hydraulic conditions and thereby permitting adjustment of the system, in combination with the rest of the claimed limitations.

Regarding claim 11, the closest prior art of record, Johnson, fails to disclose that the panels of the system are movable vertically without changing the horizontal orientation of the system in combination with the rest of the claimed limitations.

*Response to Arguments*

9. The applicant has amended claims 1, 2, 4, 7, 9-12, 14-21 and added new claims 23-28. The applicant has included material that was not presented in the original claims. For example, the applicant amended the claims to state a "hardware system" with various details regarding that system.

10. Some of the applicant's arguments in the amendment filed on October 2, 2003, have been fully considered but they are not persuasive.

In response to applicant's arguments on page 24, lines 17-24 and page 24, line 40 through page 25, line 4, that the references fail to show certain features of applicant's invention, it is noted that the applicant fails to detail exactly what features the Koch and Chicha references fail to show.

The applicant's arguments regarding the Johnson reference have been fully noted and have been considered in light of the amended claims.

*Conclusion*

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Saldano whose telephone number is 703-605-1167. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on 703-308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

lms



HEATHER SHACKELFORD  
SUPERVISORY PATENT EXAMINER  
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